

Mineral Industry Surveys

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CRUSHED STONE AND SAND AND GRAVEL IN THE FIRST QUARTER 2003

An estimated 267 million metric tons (Mt) of *crushed stone* were produced and shipped for consumption in the United States in the first quarter of 2003, a decrease of 4.9% compared with the same period of 2002.

The estimated U.S. output of *construction sand and gravel* produced and shipped for consumption in the first quarter of 2003 was 181 Mt, a decrease of 3.4% compared with the same period of 2002.

The above estimates are based on information reported to the U.S. Geological Survey quarterly sample survey by the *crushed stone* and *construction sand and gravel* producers. The decreases in the production of *crushed stone* and *construction sand and gravel* were mostly due to the very unfavorable weather conditions in most regions of the country and also a slowdown in commercial, private, and public construction work. In the first quarter of 2003, portland cement consumption decreased by 4% also, compared with the same period of 2002.

The information produced by the USGS quarterly survey on domestic production of *crushed stone* and *construction sand and gravel* has become a significant indicator of construction activity at the national as well as State level. This survey is a sample survey that generates production-for-consumption estimates by quarters for each State, except Alaska and Hawaii, and each geographic division, based on information reported voluntarily by a limited number of producing companies. Occasionally, the number of companies reporting in an area varies from quarter to quarter, or previously reported data by some companies are revised. As a result of such changes in the size or the composition of the statistical sample, the estimated quantities for prior quarters are recalculated. The latest release of the quarterly Mineral Industry Surveys contains the most recent estimated totals and percentage changes and supersedes previously published similar information.

The production-for-consumption estimates for *crushed stone* and *construction sand and gravel* are generated independently

for each State and geographic division, which are treated as separate statistical sample areas. Therefore, some differences may exist between the total for a division and the sum of State totals that are part of the same geographic division.

The percent changes between the estimated production-for-consumption for the current quarter and the same quarter of the prior year included in this report are important indicators of the production/consumption trends occurring in a particular area of the country.

The estimated U.S. *crushed stone* sold or used in the first quarter of 2003, compared with the same period of 2002, decreased in all but two geographic divisions. The largest decreases were recorded in the Middle Atlantic (-16.3%), and the West South Central and Mountain (-9.6% each) divisions. The increases in the production of *crushed stone* were recorded in the East South Central (5.2%) and the Pacific (0.4%) divisions.

The leading geographic divisions in the production of *crushed stone* sold or used in the first quarter of 2003 were the South Atlantic with 77.8 Mt, or 29.1% of the U.S. total, followed by the West South Central with 44 Mt, or 16.5%, and the East South Central with 33.3 Mt, or 12.5%.

The estimated U.S. *construction sand and gravel* sold or used in the first quarter of 2003, compared with the same period of 2002, decreased in all but two geographic divisions. The largest decreases were recorded in the East South Central (-14.8%), the West South Central (-12.8%), and the East North Central (-9%) divisions. The increases were recorded in the Mountain (10.3%), and the Pacific (0.3%) divisions.

The leading geographic divisions for the total amount of *construction sand and gravel* sold or used in the first quarter of 2003 were the Pacific with 43.4 Mt, or 24% of the U.S. total, followed by the Mountain with 40.2 Mt, or 22.2%, and the West South Central with 25.6 Mt, or 14.1%. The estimated totals by

quarters for the geographic divisions do not include Alaska and Hawaii.

Production-for-consumption of *crushed stone* in the first quarter of 2003, compared with the same period of 2002, declined in 28 of the 40 estimated States, with the largest percentage decreases occurring in Idaho (-42.5%), New York (-33.3%), Colorado (-22.9%), Wyoming (-19.4%), and Arkansas (-18.8%). The five leading States in the production-for-consumption of *crushed stone* in the first quarter of 2003 were Texas, Florida, Georgia, Missouri, and Pennsylvania. Their combined total production-for-consumption represented 37.3% of the U.S. total.

Production-for-consumption of *construction sand and gravel*, compared with the same period of 2002, declined in 28 of the 45 estimated States, with major percentage decreases occurring in Kentucky (-33.7%), Nebraska (-25.4%), North Carolina

(-22.7%), Tennessee (-22.4%), and Iowa (-21.2%). The five leading States in the production-for-consumption of *construction sand and gravel* in the first quarter of 2003 were California, Texas, Arizona, Nevada, and Washington. Their combined total production-for-consumption represented 42.6% of the U.S. total.

A total of 314 companies representing *crushed stone* and *construction sand and gravel* producers reported production-for-consumption information to the first quarter sample survey. The large participation of the producing companies in this survey is reflected by the high percentage coverage obtained for most geographic divisions and States. The percentage coverage indicates how much of the total estimated production-for-consumption for a State or a geographic division was actually reported by companies participating in this survey and was used to generate the estimated totals for that particular area.

TABLE 1
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION¹

(Thousand metric tons and thousand dollars)

Region/Division	2002						2003			
	Quantity					Value total ²	Quantity 1st qtr.	Per- cent change ³	Percent cover- age	Number of cos. ⁴
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total ²					
Northeast:										
New England	3,500	12,100	14,400	10,500	40,600	296,000	3,400	-2.9	62	14
Middle Atlantic	24,100	54,500	61,600	42,300	183,000	1,150,000	20,200	-16.3	61	30
Midwest:										
East North Central	35,200	81,500	95,100	76,000	288,000	1,380,000	33,200	-5.7	67	40
West North Central	26,700	44,600	49,600	39,900	161,000	850,000	24,900	-6.7	53	35
South:										
South Atlantic	79,800	105,000	100,000	85,600	370,000	2,300,000	77,800	-2.6	81	47
East South Central	31,700	45,700	49,800	42,700	170,000	1,030,000	33,300	5.2	61	16
West South Central	48,600	54,500	54,000	45,000	202,000	999,000	44,000	-9.6	72	25
West:										
Mountain	10,700	18,200	18,200	14,400	61,400	340,000	9,700	-9.6	45	21
Pacific ⁵	20,500	26,700	27,500	26,000	101,000	619,000	20,600	0.4	51	31
Total ²	281,000	442,000	470,000	382,000	1,590,000	9,090,000	267,000	-4.9	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding, and differences between projected totals by States and by divisions.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵Does not include Alaska and Hawaii.

⁶Includes Alaska, Hawaii, and "Other" totals; see table 2, footnote 7.

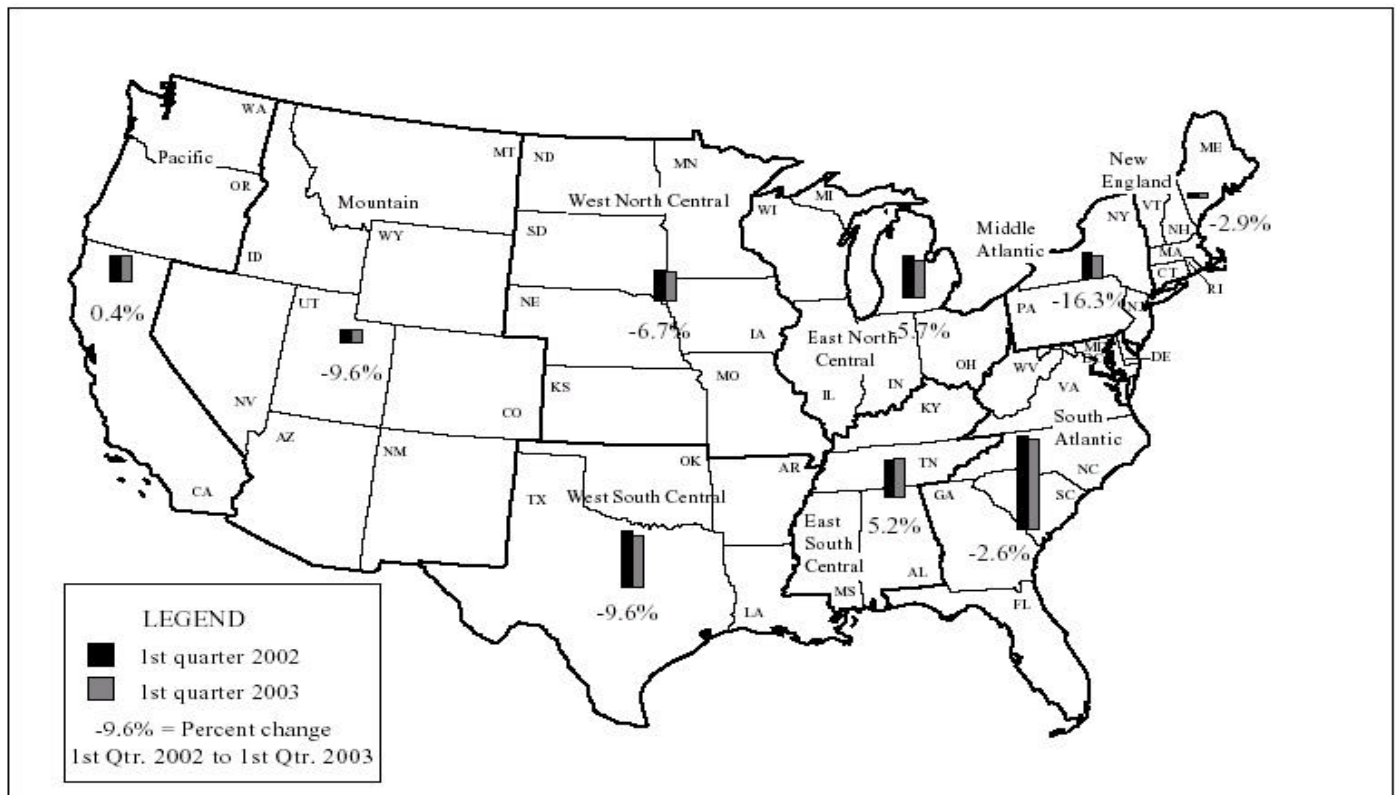


Figure 1 - First quarter crushed stone production by geographic division

TABLE 2
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

(Thousand metric tons and thousand dollars)

State	2002						2003			
	Quantity					Value total ²	Quantity 1st qtr.	Per- cent change ³	Percent cover- age	Number of cos. ⁴
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total ²					
Alabama	11,200	14,200	15,000	12,600	53,000	337,000	12,700	13.1	59	11
Alaska	(5)	(5)	(5)	(5)	1,500	8,400	(5)	(5)	(5)	(5)
Arizona	(6)	(6)	(6)	(6)	8,200	49,900	(6)	(6)	(6)	(6)
Arkansas	6,830	9,290	9,760	7,510	33,400	171,000	5,550	-18.8	57	9
California	13,500	17,200	16,600	16,200	63,500	420,000	12,700	-5.3	58	15
Colorado	2,570	4,870	4,780	3,780	16,000	104,000	1,980	-22.9	78	7
Connecticut	722	3,000	3,960	3,020	10,700	92,000	801	11.1	77	4
Delaware	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Florida	25,600	26,900	26,100	25,400	104,000	595,000	25,400	-1.0	66	10
Georgia	17,100	20,400	19,300	16,500	73,300	452,000	16,400	-4.1	95	7
Hawaii	(5)	(5)	(5)	(5)	7,000	69,200	(5)	(5)	(5)	(5)
Idaho	1,020	2,230	871	1,080	5,200	22,700	587	-42.5	30	3
Illinois	9,440	22,000	25,900	21,800	79,100	459,000	8,990	-4.7	62	10
Indiana	8,390	15,700	18,800	14,300	57,200	278,000	7,610	-9.3	80	13
Iowa	4,830	11,400	11,200	10,100	37,500	203,000	4,080	-15.4	52	7
Kansas	4,570	5,970	5,870	5,590	22,000	109,000	3,730	-18.3	61	9
Kentucky	10,100	13,400	17,400	16,100	57,000	320,000	10,700	6.0	51	8
Louisiana	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)	(6,7)
Maine	555	1,220	1,480	946	4,200	24,600	608	9.5	54	4
Maryland	4,730	6,890	6,830	5,340	23,800	145,000	3,970	-16.1	107	9
Massachusetts	1,580	4,650	5,140	3,830	15,200	129,000	1,350	-14.7	64	5
Michigan	3,120	11,700	13,800	12,200	40,800	154,000	2,860	-8.5	76	9
Minnesota	298	2,950	4,010	2,440	9,700	57,900	434	45.7	54	4
Mississippi	(6)	(6)	(6)	(6)	2,000	21,000	(6)	(6)	(6)	(6)
Missouri	15,700	19,700	24,900	19,200	79,500	406,000	15,600	-0.5	43	13
Montana	(6)	(6)	(6)	(6)	3,200	13,300	(6)	(6)	(6)	(6)
Nebraska	1,130	1,840	1,670	1,450	6,100	44,700	1,070	-5.3	131	6
Nevada	2,250	2,580	2,680	2,190	9,700	48,600	2,270	1.0	26	4
New Hampshire	320	1,710	1,760	1,210	5,000	21,900	322	0.7	68	4
New Jersey	3,190	5,410	8,910	4,480	22,000	156,000	3,520	10.3	52	5
New Mexico	1,330	1,740	1,760	1,070	5,900	37,100	1,480	11.0	25	4
New York	6,410	18,100	21,500	14,700	60,600	410,000	4,280	-33.3	66	9
North Carolina	12,900	20,000	18,200	14,800	65,800	470,000	12,400	-3.1	92	11
North Dakota	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)	(5,7)
Ohio	10,200	23,200	25,800	19,600	78,800	358,000	9,950	-2.7	74	12
Oklahoma	9,950	10,700	11,100	8,970	40,700	179,000	8,330	-16.3	73	11
Oregon	3,930	6,110	7,460	5,700	23,200	114,000	5,160	31.2	44	11
Pennsylvania	14,700	30,900	31,400	23,000	100,000	580,000	12,800	-13.1	60	20
Rhode Island	(6)	(6)	(6)	(6)	1,200	7,100	(6)	(6)	(6)	(6)
South Carolina	5,800	7,400	6,880	5,720	25,800	159,000	6,140	-5.8	78	5
South Dakota	621	1,980	2,210	1,290	6,100	28,900	606	-2.5	90	6
Tennessee	10,200	16,900	16,800	13,800	57,800	347,000	9,900	-3.1	73	8
Texas	31,700	34,400	33,700	28,200	128,000	649,000	29,500	-6.8	72	12
Utah	1,150	1,940	2,630	2,070	7,800	38,300	1,300	12.9	57	4
Vermont	(6)	(6)	(6)	(6)	4,300	21,600	(6)	(6)	(6)	(6)
Virginia	12,100	18,100	17,400	14,400	62,000	409,000	11,900	-1.9	72	10
Washington	2,970	3,160	3,530	4,240	13,900	85,100	2,750	-7.5	36	4
West Virginia	2,040	4,200	4,990	4,070	15,300	67,000	2,170	6.3	56	7
Wisconsin	4,120	8,520	11,400	8,000	32,000	134,000	3,960	-3.9	24	7
Wyoming	908	1,700	1,750	1,040	5,400	25,800	731	-19.4	74	5
Other	XX	XX	XX	XX	5,800	56,300	XX	XX	XX	XX
Total	XX	XX	XX	XX	1,590,000	9,090,000	XX	XX	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding and differences between projected totals by States.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵State not included in quarterly survey.

⁶Owing to a low number of reporting companies, no production estimates by quarters were generated.

⁷To avoid disclosing proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

TABLE 3
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION¹

(Thousand metric tons and thousand dollars)

Region/Division	2002						2003			
	Quantity					Value total ²	Quantity 1st qtr.	Per- cent change ³	Percent cover- age	Number of cos. ⁴
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total ²					
Northeast:										
New England	5,400	14,500	17,500	11,500	48,900	267,000	5,100	-6.0	25	22
Middle Atlantic	9,100	20,200	21,000	14,300	64,600	375,000	8,300	-8.9	30	23
Midwest:										
East North Central	26,400	68,300	74,100	54,100	223,000	938,000	24,000	-9.0	40	43
West North Central	8,300	33,200	41,400	26,600	110,000	413,000	7,800	-6.0	33	33
South:										
South Atlantic	18,900	22,600	21,500	18,500	81,500	403,000	17,900	-5.3	50	33
East South Central	9,700	14,200	13,600	10,700	48,200	234,000	8,300	-14.8	35	14
West South Central	29,400	33,300	29,400	25,100	117,000	572,000	25,600	-12.8	41	13
West:										
Mountain	36,400	56,700	60,000	49,900	203,000	1,000,000	40,200	10.3	42	29
Pacific ⁵	43,300	59,900	63,300	53,500	220,000	1,520,000	43,400	0.3	56	30
Total ²	187,000	323,000	342,000	264,000	1,130,000 ⁶	5,800,000 ⁶	181,000	-3.4	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding, and differences between projected totals by States and by divisions.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵Does not include Alaska and Hawaii.

⁶Includes Alaska and Hawaii.

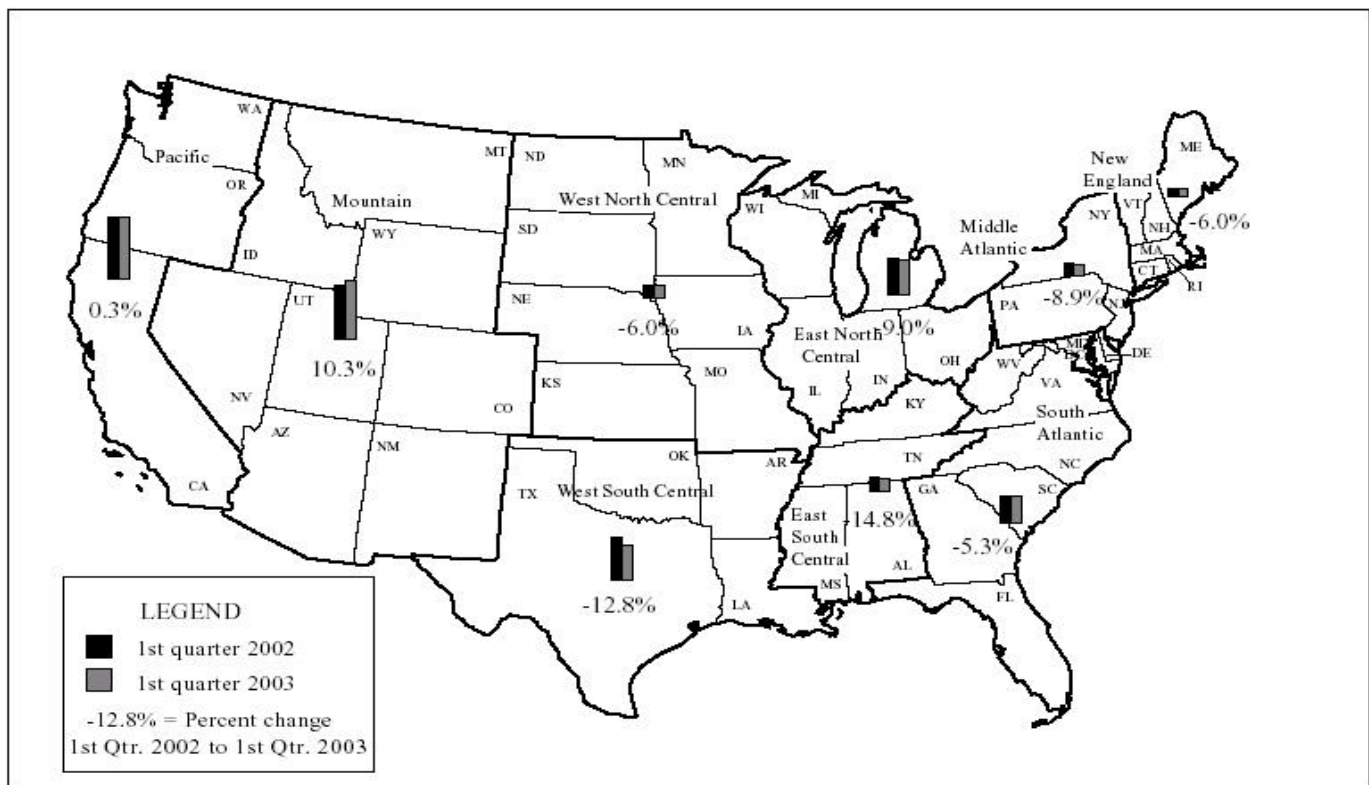


Figure 2 - First quarter sand and gravel production by geographic division

TABLE 4
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

(Thousand metric tons and thousand dollars)

State	2002						2003			
	Quantity					Value total ²	Quantity 1st qtr.	Per- cent change ³	Percent cover- age	Number of cos. ⁴
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Total ²					
Alabama	3,100	4,490	3,590	2,920	14,100	63,500	2,840	-8.4	38	7
Alaska	(5)	(5)	(5)	(5)	11,500	67,800	(5)	(5)	(5)	(5)
Arizona	12,300	12,800	11,700	12,400	49,200	273,000	12,300	0.1	70	8
Arkansas	2,470	2,970	2,900	2,570	10,900	55,000	2,220	-10.2	46	3
California	32,000	42,500	45,700	38,800	159,000	1,180,000	32,500	1.5	61	15
Colorado	5,110	12,000	14,000	9,570	40,700	215,000	5,620	10.0	47	8
Connecticut	772	2,790	3,060	1,780	8,400	50,000	713	-7.7	40	6
Delaware	(6)	(6)	(6)	(6)	3,000	17,500	(6)	(6)	(6)	(6)
Florida	6,240	6,830	6,610	6,320	26,000	116,000	6,540	4.9	64	8
Georgia	1,680	2,040	1,740	1,540	7,000	29,100	1,650	-1.6	46	6
Hawaii	(5)	(5)	(5)	(5)	500	6,000	(5)	(5)	(5)	(5)
Idaho	1,340	3,960	5,050	3,860	14,200	50,700	1,910	42.5	25	1
Illinois	3,480	8,970	10,700	8,370	31,500	143,000	3,600	3.6	40	8
Indiana	5,590	8,230	7,420	6,360	27,600	120,000	4,880	-12.6	52	7
Iowa	1,300	4,430	4,970	3,700	14,400	66,100	1,020	-21.2	50	6
Kansas	1,810	2,640	2,870	2,280	9,600	27,800	1,760	-2.8	21	3
Kentucky	1,410	2,730	3,730	2,430	10,300	41,900	936	-33.7	13	3
Louisiana	3,950	4,870	4,150	3,930	16,900	81,100	4,210	6.7	46	3
Maine	677	2,570	5,190	2,560	11,000	45,200	670	-1.0	13	4
Maryland	2,610	3,270	3,210	2,510	11,600	80,500	2,180	-16.2	42	4
Massachusetts	2,450	3,770	4,660	3,720	14,600	94,900	2,190	-10.8	18	6
Michigan	5,700	25,700	26,500	18,200	76,100	271,000	5,190	-8.9	39	10
Minnesota	770	13,100	18,100	10,400	42,400	168,000	1,210	56.8	40	10
Mississippi	2,940	4,560	4,200	3,190	14,900	77,900	2,530	-13.9	45	5
Missouri	1,360	2,690	3,220	2,530	9,800	42,100	1,260	-6.8	52	4
Montana	1,380	5,070	6,060	3,590	16,100	75,300	2,310	67.6	41	3
Nebraska	2,350	4,180	3,890	2,180	12,600	42,600	1,750	-25.4	22	5
Nevada	7,290	9,060	8,890	7,950	33,200	172,000	8,270	13.4	20	5
New Hampshire	1,040	2,610	3,200	2,150	9,000	46,100	1,040	0.1	36	5
New Jersey	2,670	4,770	4,430	3,930	15,800	94,200	2,370	-11.3	29	6
New Mexico	2,210	2,910	3,160	2,620	10,900	57,400	2,620	18.4	43	5
New York	3,850	9,090	10,400	5,920	29,300	155,000	3,440	-10.6	25	10
North Carolina	2,830	3,320	2,820	2,320	11,300	57,300	2,190	-22.7	26	4
North Dakota	(5)	(5)	(5)	(5)	10,300	26,700	(5)	(5)	(5)	(5)
Ohio	6,220	13,800	17,000	11,700	48,700	252,000	5,440	-12.5	53	15
Oklahoma	2,630	3,020	2,860	2,180	10,700	43,200	2,260	-14.2	45	6
Oregon	3,080	4,690	6,250	4,480	18,500	108,000	3,190	3.6	48	5
Pennsylvania	2,570	6,290	6,270	4,380	19,500	126,000	2,440	-5.2	37	10
Rhode Island	(6)	(6)	(6)	(6)	1,300	10,200	(6)	(6)	(6)	(6)
South Carolina	2,130	2,860	2,610	2,210	9,800	32,200	2,070	-2.7	43	4
South Dakota	760	3,160	4,040	2,440	10,400	39,200	740	-2.6	16	6
Tennessee	1,830	2,210	2,580	2,280	8,900	50,500	1,420	-22.4	37	5
Texas	20,400	22,400	19,500	16,400	78,700	393,000	16,900	-17.4	39	10
Utah	2,930	9,240	10,100	8,010	30,300	118,000	4,370	49.0	28	3
Vermont	416	1,700	1,360	1,120	4,600	20,500	403	-3.1	23	4
Virginia	2,270	3,210	3,090	2,520	11,100	61,700	2,370	4.1	56	9
Washington	7,880	13,100	11,200	10,200	42,400	230,000	7,210	-8.4	41	7
West Virginia	242	459	604	395	1,700	8,800	265	9.4	79	5
Wisconsin	4,370	12,400	12,400	9,670	38,900	152,000	4,170	-4.5	20	9
Wyoming	509	2,300	3,700	1,790	8,300	41,300	596	17.2	15	3
Total	XX	XX	XX	XX	1,130,000	5,800,000	XX	XX	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding and differences between projected totals by States.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵State not included in quarterly survey.

⁶Owing to a low number of reporting companies, no production estimates by quarters were generated.